

ABSTRACT OF SANITARY REPORTS.

VOL. V. WASHINGTON, D. C., NOVEMBER 7, 1890. No. 45.

[Published at the Marine-Hospital Bureau in accordance with act of Congress of April 29, 1878.]

UNITED STATES.

SPECIAL REPORTS.

ARKANSAS—*Little Rock*.—Acting Assistant Surgeon L. P. Gibbs, United States Marine-Hospital Service, reports 2 cases of small-pox at Redfield, Ark.

Reports of States, and yearly and monthly reports of cities.

NEW YORK STATE.—Total number of deaths, 8,611, including phthisis, 1,005; enteric fever, 229; diphtheria, 237; scarlet fever, 40; and measles, 29.

MICHIGAN.—Reports to the State board of health, Lansing, for the week ending October 25, 1890, indicate that measles, puerperal fever, pleuritis, membranous croup, and erysipelas increased, and that cholera infantum, inflammation of brain, cerebro-spinal meningitis, inflammation of bowels, typhoid fever, whooping-cough, and pneumonia decreased in area of prevalence.

Including reports by regular observers and others, diphtheria was reported present during the week ending October 25, and since, at 32 places, scarlet fever at 32 places, and typhoid fever at 41 places.

MISSOURI—*St. Louis*.—Month of September, 1890. Population, 460,000. Total number of deaths, 718, including phthisis, 63; enteric fever, 27; diphtheria, 17; scarlet fever, 8; and whooping-cough, 4.

Publication received.

Twenty-first annual report of the State board of health of Massachusetts, 1890.

Table of temperature and rain-fall, week ended October 31, 1890.

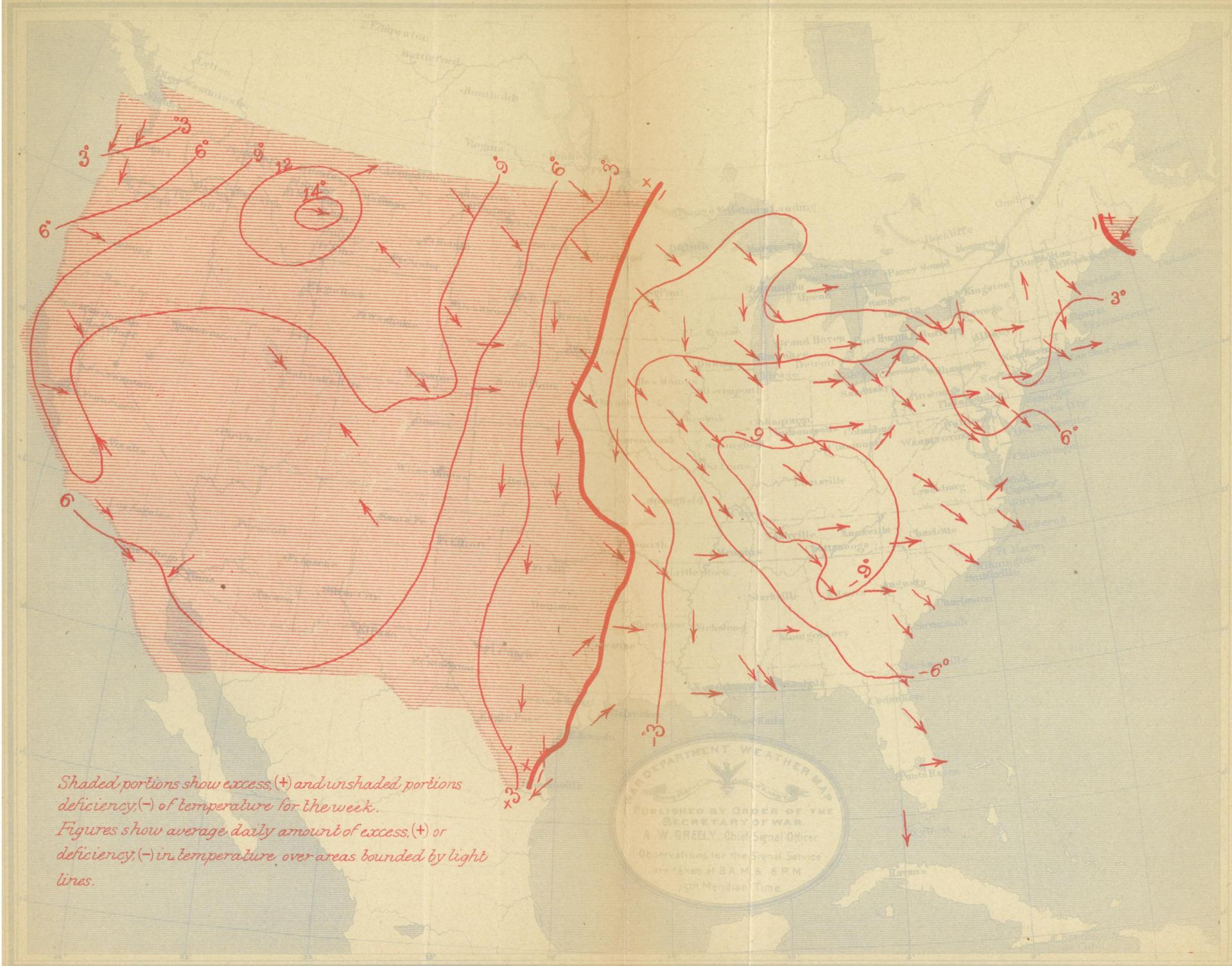
[Received from War Department, Signal Office.]

Locality.	Mean temperature in degrees Fahrenheit.			Rain-fall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
New England States:						
Eastport, Me.....	43	3		1.06		.64
Portland, Me.....	43		7	.85	.54	
Boston, Mass.....	47		21	.94		.30
Block Island, R. I.....	50		24	.98	.48	
Middle Atlantic States:						
Albany, N. Y.....	46		13	.74	.08	
New York, N. Y.....	51		18	.75		.59
Philadelphia, Pa.....	52		31	.64		.45
Atlantic City, N. J.....	53		43	.73		.59
Baltimore, Md.....	53		37	.68		.62
Washington, D. C.....	53		43	.72		.68
Lynchburg, Va.....	54		47	.70		.18
Norfolk, Va.....	58		59	.79		.06
South Atlantic States:						
Charlotte, N. C.....	57		59	1.13		1.10
Wilmington, N. C.....	62		62	.87		.51
Charleston, S. C.....	64		55	1.03		1.01
Augusta, Ga.....	61		52	.48		.29
Savannah, Ga.....	64		53	.85		.85
Jacksonville, Fla.....	70		42	1.35		1.35
Key West, Fla.....	77		35	1.24		1.24
Gulf States:						
Atlanta, Ga.....	59		65	.54		.35
Pensacola, Fla.....	65		36	.77		.77
Mobile, Ala.....	64		39	.78		.78
Montgomery, Ala.....	61		41	.53		.53
Vicksburg, Miss.....	62		26	.71		.71
New Orleans, La.....	67		33	.71		.71
Shreveport, La.....	61		14	.84		.84
Fort Smith, Ark.....	57		17	.70		.70
Little Rock, Ark.....	59		21	.64		.64
Palestine, Tex.....	62	1		.77		.77
Galveston, Tex.....	69		15	1.20		1.20
San Antonio, Tex.....	65	3		.50		.50
Corpus Christi, Tex.....	69	4		.84		.84
Brownsville, Tex.....	72		3	1.05		1.05
Rio Grande City, Tex.....	68	28		.48		.48
Ohio Valley and Tennessee:						
Memphis, Tenn.....	58		34	.77		.77
Nashville, Tenn.....	57		64	.63		.53
Chattanooga, Tenn.....	57		55	.73		.64
Knoxville, Tenn.....	55		70	.72		.32
Louisville, Ky.....	55		73	1.20		.53
Indianapolis, Ind.....	51		60	.73	.09	
Cincinnati, Ohio.....	53		71	.63	.12	
Columbus, Ohio.....	49		59	.73		.40
Pittsburgh, Pa.....	50		46	.58	.26	
Lake Region:						
Oswego, N. Y.....	47		31	.76		.72
Rochester, N. Y.....	45		16	.72		.35
Buffalo, N. Y.....	46		37	.86	.24	
Erie, Pa.....	49		56	.98	.86	
Cleveland, Ohio.....	49		48	.66	1.00	
Sandusky, Ohio.....	49		48	.67	.24	
Toledo, Ohio.....	50		62	.61		.08
Detroit, Mich.....	46		43	.58	.12	
Port Huron, Mich.....	45		38	.68	.00	.00
Alpena, Mich.....	41		19	.79	.04	
Marquette, Mich.....	40		28	.82	.62	
Grand Haven, Mich.....	45		32	.88		.35
Milwaukee, Wis.....	44		30	.62		.26
Chicago, Ill.....	48		56	.83	.51	
Duluth, Minn.....	39		13	.67		.64
Upper Mississippi Valley:						
St. Paul, Minn.....	40		23	.47		.26
La Crosse, Wis.....	44		38	.57		.43
Dubuque, Iowa.....	44		33	.72		.60
Davenport, Iowa.....	47		46	.70		.70
Des Moines, Iowa.....	48		42	1.00		.94
Keokuk, Iowa.....	48		47	.78		.74
Springfield, Ill.....	51		63	.92		.85
Cairo, Ill.....	56		55	.73		.55
St. Louis, Mo.....	53		51	.66		.63

Table of temperature and rain-fall, week ended October 31, 1890—Continued.

Locality.	Mean temperature in degrees Fahrenheit.			Rain-fall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Missouri Valley:						
Kansas City, Mo.....	50		20	.77		.77
Springfield, Mo.....	50		14	.63		.58
Concordia, Kan.....	49	9		.49		.49
Omaha, Nebr.....	46		7	.68		.64
Yankton, Dak.....	41	19		.38		.26
Valentine, Nebr.....	42	39		.22		.21
Huron, Dak.....	40		1	.28		.26
Extreme Northwest:						
Moorhead, Minn.....	36	12		.56		.30
Saint Vincent, Minn.....	32	28		.42		.16
Bismarck, Dak.....	36	50		.28		.22
Buford, Fort, Dak.....	37	66		.21		.21
Rocky Mountain Slope:						
Assinniboine, Fort, Mont.....	40	65		.14		.14
Helena, Mont.....	38	102		.21		.21
Custer, Fort, Mont.....	42	67		.22		.22
Rapid City, Dak.....	42	61		.13		.13
Salt Lake City, Utah.....	46	40		.39		.39
Cheyenne, Wyo.....	39	70		.16		.16
North Platte, Nebr.....	44	34		.29		.29
Denver, Colo.....	44	52		.16		.16
Dodge City, Kans.....	49	29		.28		.28
Sill, Fort, Ind. T.....	56	10		.66		.66
Santa Fé, N. Mex.....	44	57		.23		.23
Pacific Coast:						
Olympia, Wash.....	47	15		1.14		1.14
Portland, Oreg.....	50	31		1.02		1.02
Roseburg, Oreg.....	49	59		.64		.64
Red Bluff, Cal.....	61	65		.30		.30
Sacramento, Cal.....	69	48		.20		.20
San Francisco, Cal.....	58	65		.27		.27
Los Angeles, Cal.....	62	55		.11		.11
San Diego, Cal.....	61	11		.10		.10
Yuma, Ariz.....	68	49		.03		.03

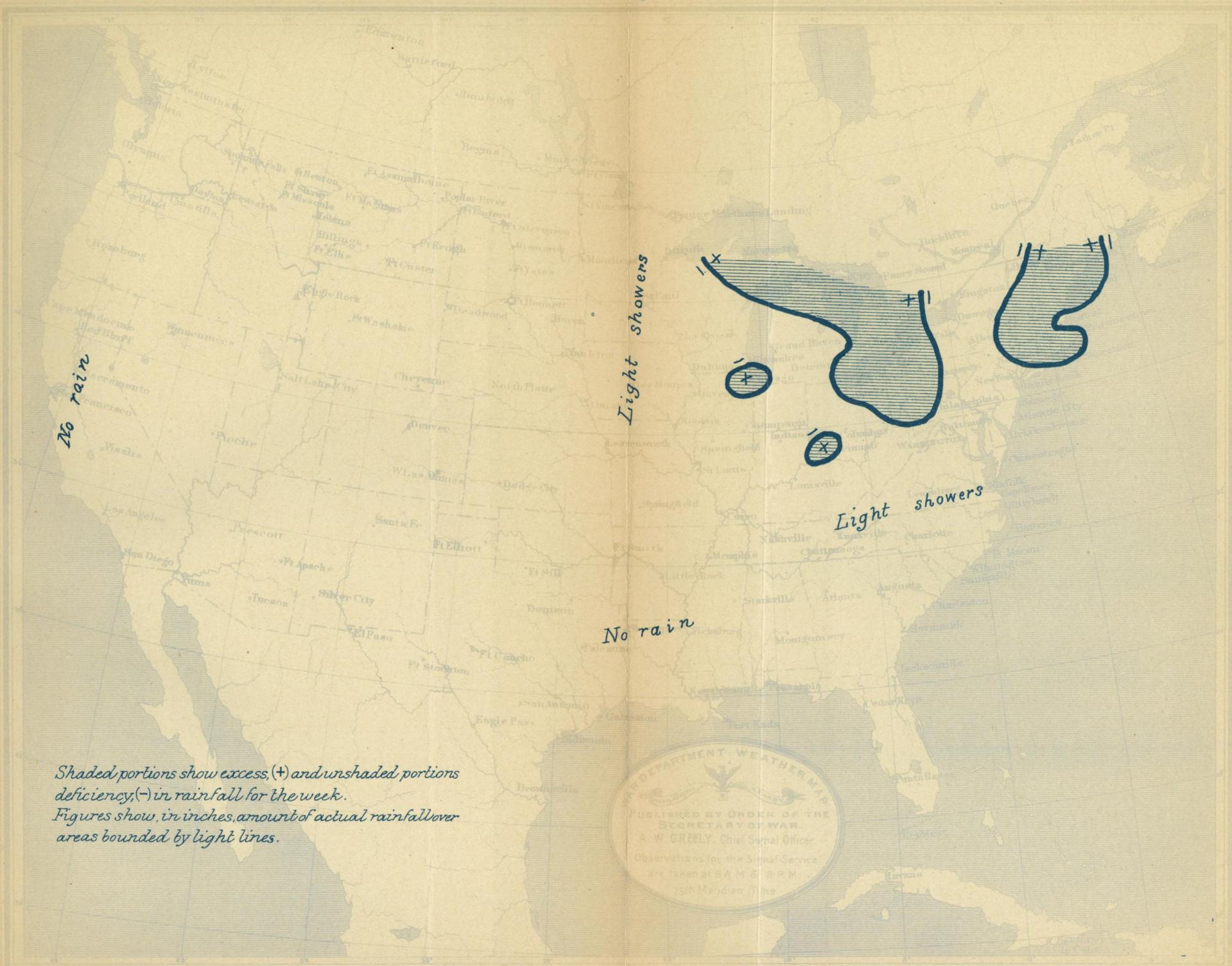
*Temperature and Prevailing Direction of Wind, week ending
October 31th 1890.*



*Shaded portions show excess, (+) and unshaded portions deficiency, (-) of temperature for the week.
Figures show average daily amount of excess, (+) or deficiency, (-) in temperature over areas bounded by light lines.*

U.S. DEPARTMENT WEATHER MAP
PUBLISHED BY ORDER OF THE SECRETARY OF WAR
A. W. GREELY, Chief Signal Officer
Observations for the Signal Service are taken at 8 A.M. & 8 P.M.
75th Meridian Time

Rainfall, week ending October 31th 1890.



No rain

Light showers

Light showers

No rain

Shaded portions show excess (+) and unshaded portions deficiency (-) in rainfall for the week. Figures show, in inches, amount of actual rainfall over areas bounded by light lines.



FOREIGN.

(Reports received through the Department of State and other channels.)

GREAT BRITAIN—*England and Wales.*—The deaths registered in 28 great towns of England and Wales during the week ended October 18 corresponded to an annual rate of 20.8 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Nottingham, viz, 12.3, and the highest in Manchester, viz, 28.0 a thousand. Diphtheria caused 3 deaths in Salford, 3 in Manchester, 5 in Birmingham, 2 in Portsmouth, and 2 in Birkenhead.

London.—One thousand seven hundred and forty-one deaths were registered during the week, including measles, 59; scarlet fever, 20; diphtheria, 41; whooping-cough, 30; enteric fever, 11; and diarrhœa and dysentery, 75. The deaths from all causes corresponded to an annual rate of 20.5 a thousand. Diseases of the respiratory organs caused 340 deaths. In greater London 2,168 deaths were registered, corresponding to an annual rate of 19.6 a thousand of the population. In the "outer ring" the deaths included measles 20 and diphtheria 18.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended October 18, in the 16 principal town districts of Ireland, was 20.1 a thousand of the population. The lowest rate was recorded in Lurgan, viz, 0.0, and the highest in Waterford, viz, 32.4 a thousand. In Dublin and suburbs 144 deaths were registered, including typhus, 1; enteric fever, 4; and whooping-cough, 4.

Scotland.—The deaths registered in eight principal towns during the week ended October 18 corresponded to an annual rate of 19.4 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Paisley, viz, 14.7, and the highest in Glasgow, viz, 22.0 a thousand. The aggregate number of deaths registered from all causes was 501, including measles, 13; scarlet fever, 8; diphtheria, 7; whooping-cough, 16; fever, 5; diarrhœa, 25; and croup and laryngitis, 5.

Gibraltar—Quarantine.—The following notice has been received from the United States consul, under date of October 13, 1890:

Notice.—GIBRALTAR, October 13, 1890.—The board of health have decided to extend the quarantine of twenty-one days, imposed on the ports specified in their order published on the 12th ultimo, to arrivals from Barcelona.

By order :

JOHN C. KING,
Secretary to the Board of Health.

ITALY—*Turin*.—Decade ended August 31, 1890. Population, 314,827. Total number of deaths, 178, including phthisis, 7; typhus fever, 7; and diphtheria, 2.

MEXICO—*Merida*.—The United States consul at Merida, Yucatan, writes as follows, under date of October 20, 1890:

A species of influenza resembling in several respects "grippe" is now making the rounds of Yucatan. In Merida alone I estimate that at least three thousand souls are afflicted with it to-day. The disease does not seem to be directly fatal, but like the grip seems to induce other and fatal forms of disease.

No returns from the interior have been received or indeed inquired for by any one except myself; therefore any accurate statement of the facts outside of Merida can not be made as yet.

SPAIN—*Barcelona*.—The United States consul at Barcelona transmits the following health report for week ending October 17, 1890:

Deaths.—Diphtheria, 7; cholera, 4; typhoid, 22; other contagious diseases, 7. Total number of deaths, 128. Grand total, cholera, 17.

As the cholera has not been officially declared to exist here the health board can not give the number of "cases."

Health report of agencies connected with Barcelona consulate.

Grao.—Week ended October 19. Seventy-five cases of cholera, 50 deaths; 1 case of diphtheria, 1 death.

Tarragona.—Week ended October 18. No contagious diseases; 10 deaths.

San F. de Guix.—Week ended October 19. No contagious diseases; 4 deaths.

Palma.—Week ended October 12. No contagious diseases; 16 deaths.

Valencia—Cholera.—Week ended October 19, 1890. City of Valencia, 75 cases, 50 deaths; province and city, 113 cases, 71 deaths. Grand total, 4,105 cases, 2,047 deaths in city and province.

Cadiz—Cholera—The United States consul at Cadiz forwards the following under date of October 2, 1890:

I have the honor to report that cholera has reached Gelves, a small town about nine miles below Seville on the Guadalquivir River. It seems to have existed in this place since September 13. It was first looked upon as suspicious, but nothing official was done to discover its real character until the 29th ultimo.

Seville is in danger, as communication between the two places has, until three days ago, been uninterrupted.

Before the official investigation took place several families from Gelves became alarmed and moved to Seville. If cholera reaches Seville it will have invaded the best-watered town of Spain and the most diligent in sanitary regulations. To-day's papers report the epidemic on the increase in Valencia.

TURKEY—*Constantinople*.—Month of August, 1890. Population, 700,000. Total deaths from all causes, 817, including small-pox 17.

TURKEY IN ASIA—*Cholera*.—The following report is received, under date of October 11, 1890, from Doctor Zivitzino, commissioner for the American legation upon the sanitary commission of Constantinople:

Since my last report the news from the districts infected by the cholera is good, except that from Aleppo, where the epidemic is on the increase, manifesting a threatening aspect. On the 29th of September cholera broke out in the prison of Aleppo, there being three attacks, from which two died.

Absolutely nothing has been, or is to be, done to improve the sanitary condition of the city of Aleppo. His majesty the Sultan daily issues irades ordering that the necessary measures should be taken, but the employés have the fixed idea that nothing else than the establishment of quarantine is necessary. The effects of it are not only useless but offensive. The following is an example: On the 8th of September an officer of the army died at Orfa from cholera. This officer had arrived from Meskene, where cholera existed. The house in which he died was immediately put under quarantine and surrounded by a cordon. A few days later the cordon was removed, no fresh attack having occurred, but on September 24 the disease re-appeared in the town and caused four deaths. Such instances are of daily occurrence. Nevertheless, the government employés persist in their system of quarantines and cordons only, and the disinfection which they state in their official reports that they have made is only superficial. As a proof of my statement, I call your attention to the fact that on board the steamer *Adana*, carrying pilgrims, having purged their quarantine at Tor, from this place to Clazonimus, near Smyrna, nine deaths occurred.

They reported these cases as simple diarrhoea or dysentery, but I prefer to await the final issue before forming my opinion.

Here in the capital, except a few cases of sporadic dengue, the condition of the public health is rather good.

ALEPPO—*Cholera*.—The United States consul at Beirut transmits the following under date of September 27, 1890:

Referring to my dispatch of the 15th instant, on the subject of cholera in Aleppo, Syria, I have now the honor to inclose herewith, for the information of the Department of State, a copy of a letter addressed to this consulate, under date of September 20, 1890, by Mr. Frederick Poche, United States consular agent at that place, relating to the same subject, which explains itself.

The following statistical table, published by the official paper of the vilayet of Beirut, shows the daily progress at Aleppo of the epidemic in question during the period embraced between the 11th and 25th, inclusive, of the present month:

	Cases.	Deaths.
September 11 and 12.....	15	9
13, 14, 15, and 16.....	0	0
17.....	5	2
18.....	0	0
19.....	0	2

	<i>Cases.</i>	<i>Deaths.</i>
September 20	6	2
21	0	1
22	3	1
23	5	3
24	5	4
25	0	1
Total.....	39	25

[Inclosure.]

I regret to bring to your notice that on Friday and Saturday, the 12th and 13th instants, 15 cases of cholera, followed by 9 deaths, have been formally recognized by the sanitary office of Aleppo. Since then a respite took place, which only lasted up to Wednesday, the 17th instant, on which day 5 new cases and 3 deaths occurred.

The epidemic would, from all appearances, seem to have been introduced through the improvidence and carelessness of our governor-general, who, notwithstanding the fact that the Asiatic cholera was perfectly well known to be prevailing, since June last, among the nomadic tribes of "Chamars," who haunt the Mesopotamian country, and of "Anezis," who encamp in the Syrian desert, did not consider it necessary to pay any attention to that state of things, but called the latter tribe to "Meskene," which is eighteen hours distant by caravan from Aleppo, in order to collect from it the camels tax. Many of the collecting soldiers and officers were effected by the contagion and died. Despite all this, no measures whatever were taken to stop the communications with that infected locality, from which the plague was imported into Aleppo by an officer who, though affected with the disease, has not succumbed.

What is most to be regretted in this matter is that this case was considered to be of no importance whatever and not any of the precautions usually used in similar circumstances had been adopted, in consequence of which the epidemic began its ravages in the quarter adjoining to the military hospital where the officer was treated.

In view of the appearance of cholera at "Meskene," her maritime communications with the port of Alexandretta are being interrupted. The steamers of the Egyptian company, "Khedive," as well as the company of the French "Messageries Maritimes," have suspended their service.

Yesterday and the day before yesterday, 3 cases of cholera were reported by the sanitary office, which, since the 13th instant up to this day, reckoned 27 cases and 19 deaths.

From the above figures it will be observed that so far the cholera has fortunately not assumed a serious character at Aleppo, and it is confidently hoped that it will before long completely disappear from that city and its environs.

It is further gratifying to state that in conformity with orders issued by the Grand Vizierate at Constantinople a military cordon was established, soon after the breaking out of the plague at Aleppo, along the whole frontier line which separates the province of Aleppo from the vilayet of Beirut and Syria.

This measure and other prophylactic precautions were taken in order to intercept all direct communications with the infected localities and

to prevent the propagation of that terrible epidemic in this part of the Turkish empire.

It affords this consulate much pleasure to have to report in this connection that the official local papers have just announced the complete extinction of the cholera in the province of the "Hedjaz," Arabia, as well as in the vilayet of Diarbekir.

AFRICA—Loanda.—Month of April, 1890. Population, 14,500. Total deaths from all causes, 21, including small-pox 1.

The sanitary condition of the town is very unsatisfactory. Small-pox is the prevailing disease among the natives, and no attempt is made to check it.

The following is received through the United States consul at Kingston, Jamaica, under date of October 7, 1890 :

I certify that so far as I am aware there are no cases of yellow fever or infectious diseases in the city of Kingston or its vicinity. The health of the city is above the average, there being a far less number than usual of diseases of a less important nature.

C. B. MOSSE,
Supervising Medical Officer.

BRAZIL—Pernambuco.—The United States consul, under date of September 30, 1890, reports small-pox prevalent at that port.

The action of an infusion of coffee on bacteria.

[Translated for this Bureau from *La Rivista Internazionale d'Igiene*, Naples, August, 1890.]

In studying the germicidal action of coffee Doctor Lüderitz made use of infusions of different degrees of concentration, varying from 5 to 30 gr. of coffee to 10 c. c. of water.

He mixed from 4 to 6 drops of pure culture broth with from 8 to 10 c. c. of this infusion, and at the end of a certain time he withdrew parts of this mixture and cultivated them in gelatine. Experiment showed that the micrococcus prodigiosus dies in a 10 per cent. infusion of coffee in from 3 to 5 days, the bacillus of typhus in from 1 to 3 days, the proteus vulgaris in from 2 to 4 days, the staphylococcus aureus in from 4 to 7 days, the streptococcus of erysipelas in one day, the bacillus of cholera in from 3 to 4 hours, the bacillus of anthrax in from 2 to 3 hours, and the spores of anthrax in from 2 to 4 weeks.

In a 30 per cent. infusion of coffee the typhus bacillus dies in one day, the staphylococcus aureus in from 1 to 3 days, the bacillus of cholera in from one-half hour to two hours, the bacillus of anthrax in two hours, the spores of anthrax in from 2 to 4 weeks.

In a second series of experiments Lüderitz studied the influence of an infusion of coffee mixed with gelatine on the development of bacteria. These experiments showed that the micrococcus prodigiosus does not vegetate in gelatine containing from 3 to 9 per cent. of coffee, the bacillus of typhus in gelatine with 3 per cent. of coffee, the proteus vulgaris with from 5 to 9 per cent., the staphylococcus aureus with 2

per cent., the streptococcus of erysipelas with 1 per cent., the cholera bacillus with 1, and the bacillus of anthrax with 0.6 per cent.

The action is the same for the different qualities of coffee, and is due not to the caffenin, but the products of the roasting of the coffee.

On the connection existing between aquatic micro-organisms and the composition of water.

[Translated for this Bureau from *La Rivista Internazionale d'Igiene*, Naples, August, 1890.]

Doctors Scala and Alessi have completed a series of experiments demonstrating that micro-organisms multiply in standing water, at the expense of the organic matter liberated in the water, this multiplication being but slightly influenced by a temperature a little above zero. They note the fact that micro-organisms diminish in water charged with carbonic acid. After demonstrating that light, movement, pressure, and cold have no influence on these micro-organisms, they experimented directly with carbonic acid, their experiments resulting in the proof of the lethal action of carbonic acid on the micro-organisms of water. This action they consider analogous to that by which other ferments die in liquids produced by themselves.

Doctor Sormani Pavia on the etiology and prophylaxis of tetanus.

[Translated for this Bureau from the *Berliner Klinische Wochenschrift*, September 22, 1890.]

The writer is convinced, by experiment, that the bacilli of tetanus, taken up from cultivated ground by animals with their food, develop in the stomach and pass from it without injury to the animal. Once communicated to a wound, they increase and spread by way of the lymph vessels to the nerves and secretions. General prophylaxis consists in the disinfection of floors and other parts of the dwelling by means of corrosive sublimate in the proportion of 2 parts to 1,000, but the results are doubtful, owing to the great power of resistance possessed by the spores. Particular prophylaxis consists in treatment of a wound which threatens tetanus. Iodoform is adapted to this purpose, especially when the bacilli of tetanus are associated with bacteria of strong reducing properties.

MORTALITY TABLE, FOREIGN CITIES—CONTINUED.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Small-pox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.
Cape Town.....	Sept. 17.....	36,000	14							2		1
Ceara.....	Sept. 30.....	33,000	83									
New Castle, N. B.....	Oct. 18.....	28,000	5									
New Castle, N. B.....	Oct. 25.....	28,000	5									
Schiedam.....	Oct. 18.....	25,600	4									
Cardenas.....	Oct. 18.....	25,000	9									
Vera Cruz.....	Oct. 16.....	23,800	30		1							
Vera Cruz.....	Oct. 23.....	23,800	24		1							
Gibraltar.....	Oct. 12.....	23,681	12					1				
Girgenti.....	Oct. 11.....	23,547	10									
Girgenti.....	Oct. 18.....	23,547	11									
Licata.....	Oct. 11.....	19,000	7							2		
Licata.....	Oct. 18.....	19,000	6				1	2				
Kingston, Can.....	Oct. 24.....	18,000	1									
Matamoras.....	Oct. 28.....	16,000	5									
Cartagena.....	Oct. 11.....	16,000	9			1						
Antigua.....	Oct. 11.....	15,847	11									
Antigua.....	Oct. 18.....	15,847	14									
Hamilton, Bermuda.....	Oct. 23.....	15,700	2									
Hamilton, Bermuda.....	Oct. 30.....	15,700	1									
Sagua.....	Oct. 18.....	15,605	4									
Cape Haytien.....	Sept. 6.....	15,000	7									
Cape Haytien.....	Sept. 13.....	15,000	6									
Cape Haytien.....	Sept. 20.....	15,000	4									
Flushing.....	Oct. 18.....	13,200	7									
Guelph.....	Oct. 25.....	10,173	3									
Colon.....	Oct. 4.....	8,000	8		1							
La Guayra.....	Oct. 11.....	7,428	2									
La Guayra.....	Oct. 18.....	7,428	3									
Prescott.....	Oct. 23.....	2,988	4									

JOHN B. HAMILTON,

Supervising Surgeon-General, Marine-Hospital Service.